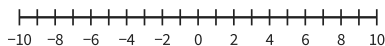


### 1 Negatives: add, subtract

- a) Work out  $3 - 10 + 4$   
b) At 6 am it is  $-6^{\circ}\text{C}$ . At noon it is  $5^{\circ}\text{C}$ .  
How much warmer is it at noon?



a)  $-3$    b)  $5 - -6 = 11^{\circ}\text{C}$

### 2 Negatives: multiply, divide

- a) Work out  $-4 \times 3 \times -5$   
b) Find the missing number.  $-56 \div \square = 8$

a)  $-12 \times -5 = 60$

b)  $-7$

### 3 Listing factors

- a) List all the factors of 42.  
b) Which number between 25 and 35 has exactly 8 factors?

a)  $1, 2, 3, 6, 7, 14, 21, 42$

b)  $30$  ( $1, 2, 3, 5, 6, 10, 15, 30$ )

### 4 Is it prime?

- a) Is 87 a prime number?  
Show how you know.  
b) Write down the two prime numbers between 50 and 60.

a) No:  $87 = 3 \times 29$

b)  $53$  and  $59$

### 5 Prime and composite

- a) Sort 21, 23, 27, 31, 33, 37 into the table.  
b) Why is 1 not a prime number?

| Prime      | Composite  |
|------------|------------|
| 23, 31, 37 | 21, 27, 33 |

b)  $1$  has only one factor

### 7 HCF and LCM

- a) Find the HCF of 36 and 48.  
b) A bus leaves every 15 min and a tram every 20 min. Both leave at 9 am.  
When do they next leave together?

a)  $12$

b)  $\text{LCM} = 60 \text{ min}$ , so 10 am

### 9 Squares and square roots

- a) Work out  $13^2 - \sqrt{64}$   
b) A square garden has an area of  $81 \text{ m}^2$ .  
Work out its perimeter.

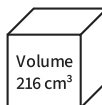
Area  
 $81 \text{ m}^2$

a)  $169 - 8 = 161$

b) side  $9 \text{ m}$ ,  $4 \times 9 = 36 \text{ m}$

### 10 Cubes and cube roots

- a) Work out  $4^3 + \sqrt[3]{8}$   
b) A cube has a volume of  $216 \text{ cm}^3$ . How long is each edge?



a)  $64 + 2 = 66$

b)  $\sqrt[3]{216} = 6 \text{ cm}$

### 11 Index notation

- a) Write  $5 \times 5 \times 5 \times 5 \times 7 \times 7$  in index form.  
b) Write 10 000 as a power of 10.

a)  $5^4 \times 7^2$

b)  $10^4$

### 12 Using index notation

- a) Work out  $2^4 \times 3^2$   
b) Which is bigger,  $3^4$  or  $4^3$ ?  
Show how you know.

a)  $16 \times 9 = 144$

b)  $81 > 64$ , so  $3^4$

## Number revision mat answers

Foundation A